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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/505,621	02/16/2000	Mark A. Hollar	M-7348 US	6010

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EXAMINER	
DAVIS, ZACHARY A	

ART UNIT	PAPER NUMBER
2137	

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/505,621	HOLLAR ET AL.	
	Examiner	Art Unit	
	Zachary A. Davis	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 June 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-46* is/are pending in the application.

4a) Of the above claim(s) *7-40* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 and 41-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. A Request for Continued Examination with amendment was received on 05 June 2005. Claims 1, 5, and 41 have been amended. New Claims 44-46 have been added. Claims 7-40 remain withdrawn from further consideration. No claims have been canceled. Claims 1-6 and 41-46 are presently under examination.

Response to Arguments

2. Applicant's arguments with respect to claims 1-6 and 41-46 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-6 and 41-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz, US Patent 6209092, in view of Callway et al, US Patent 6356704, and Applicant admitted prior art.

In reference to Claim 1, Linnartz discloses a method including supplying a video signal (for example, from disc 11 in Figure 1), embedding a watermark in the video signal (column 6, lines 5-16, where an analog watermark is included in the vertical blanking interval, or a digital watermark is included in either the MPEG picture type sequence or within the pixel domain, i.e. the video data itself), and providing data associated with the watermark (column 6, lines 17-18; see column 6, lines 33-40, where the watermark is a function of the ticket T; see also column 5, lines 3-5 and 52-54) in a video line of the vertical blanking interval (column 6, lines 8-11). However, Linnartz does not explicitly disclose sending the associated data on a line of the vertical blanking interval carrying parental blocking data.

Callway discloses a method for detecting protection of video signals that includes an indication of protection (column 2, lines 61-66) that can be used for both parental control and copy protection (column 3, lines 5-10). Callway further discloses that the data access parameter can be included in the vertical blanking interval of the video signal (column 3, lines 35-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Linnartz by sending the data associated with the watermark on a line of the vertical blanking interval that also carries parental blocking data, in order to allow for a further layer of control over the video data by prohibiting unauthorized access according to parental controls in addition to preventing unauthorized copying (see Callway, column 2, lines 25-31). One would be further motivated to modify the method of Linnartz as indicated in order to

insure that a personal computer cannot gain unauthorized access or make unauthorized copies of video data (see Callway, column 1, lines 55-58, and column 2, lines 31-35).

Although the combination of Linnartz and Callway renders obvious the use of a portion of the vertical blanking interval also carrying parental blocking data for carrying data associated with a watermark for copy protection purposes, neither Linnartz nor Callway explicitly discloses using line 21, field 2, which is the line carrying parental blocking data according to an established television signal. However, Applicant admits that line 21, field 2 of the vertical blanking interval is used to carry parental blocking data (page 5, lines 23-28, and page 6, lines 13-15 of Applicant's specification) or other extended data services (page 6, lines 13-15) and that the specification of the use of line 21 is part of an established television standard (page 5, lines 23-29, where the use of line 21 is disclosed in standards EIA-608 and EIA-744). Additionally, Applicant admits that televisions and personal computers with television tuner cards must, by law, be able to detect line 21 data (page 5, line 31-page 6, line 7). Applicant further states that it has been known for many years that video line 21 is suitable for carrying supplemental digital data (page 19 of Applicant's arguments, filed 14 June 2004). Therefore, it would have been obvious to one of ordinary skill in the art to further modify the method of Linnartz and Callway, by using line 21 of the vertical blanking interval, as specified by established television standards, to carry both the parental blocking data and the associated data, collectively referred to as the data access parameter or indication of protection as taught by Callway, since parental blocking data is already carried on line 21 (see page 5, line 23-page 6, line 15 of Applicant's specification).

In reference to Claim 2, Linnartz further discloses that the associated data is a cryptographic value (column 6, lines 17-18, where ticket T is a cryptographic counter).

In reference to Claim 3, Linnartz further discloses that the cryptographic value is a hash function of a seed (column 6, lines 57-58, where F is a one-way function) and that the watermark is a multiple hash function of the seed (column 6, lines 59-60).

In reference to Claims 4 and 44, Applicant further admits that the parental blocking data is carried on field 2, line 21 (page 6, lines 13-15, as detailed above).

In reference to Claims 42 and 45, Linnartz further discloses that the associated data includes at least 64 bits (column 6, lines 20-21, where the ticket can have up to 1000 bits). Further, because Linnartz discloses associated data of up to 1000 bits in length and the ANSI/EIA-608 standard discloses that only two bytes (16 bits) are transmitted per field, a 1000 bit ticket would take a plurality of fields to transmit, and would extend over more than four fields.

In reference to Claim 5, Linnartz discloses an apparatus including a seed generator (column 6, lines 1 and 55-57), a hash function generator receiving a seed and producing data (see column 5, lines 3-5 and subsequent, describing a one-way function; see also column 6, lines 57-58), a watermark generator receiving the seed and embedding the watermark (see column 6, lines 5-16 and 59-60), and a transmission channel transmitting the watermark and data (column 6, lines 5-16). However, Linnartz does not explicitly disclose sending the associated data on a line of the vertical blanking interval carrying parental blocking data.

Callway discloses a method for detecting protection of video signals that includes an indication of protection (column 2, lines 61-66) that can be used for both parental control and copy protection (column 3, lines 5-10). Callway further discloses that the data access parameter can be included in the vertical blanking interval of the video signal (column 3, lines 35-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Linnartz by sending the data associated with the watermark on a line of the vertical blanking interval that also carries parental blocking data, in order to allow for a further layer of control over the video data by prohibiting unauthorized access according to parental controls in addition to preventing unauthorized copying (see Callway, column 2, lines 25-31). One would be further motivated to modify the apparatus of Linnartz as indicated in order to insure that a personal computer cannot gain unauthorized access or make unauthorized copies of video data (see Callway, column 1, lines 55-58, and column 2, lines 31-35).

Although the combination of Linnartz and Callway renders obvious the use of a portion of the vertical blanking interval also carrying parental blocking data for carrying data associated with a watermark for copy protection purposes, neither Linnartz nor Callway explicitly discloses using line 21, field 2, which is the line carrying parental blocking data according to an established television signal. However, Applicant admits that line 21, field 2 of the vertical blanking interval is used to carry parental blocking data (page 5, lines 23-28, and page 6, lines 13-15 of Applicant's specification) or other extended data services (page 6, lines 13-15) and that the specification of the use of line 21 is part of an established television standard (page 5, lines 23-29, where the use of

line 21 is disclosed in standards EIA-608 and EIA-744). Additionally, Applicant admits that televisions and personal computers with television tuner cards must, by law, be able to detect line 21 data (page 5, line 31-page 6, line 7). Applicant further states that it has been known for many years that video line 21 is suitable for carrying supplemental digital data (page 19 of Applicant's arguments, filed 14 June 2004). Therefore, it would have been obvious to one of ordinary skill in the art to further modify the apparatus of Linnartz and Callway, by using line 21 of the vertical blanking interval, as specified by established television standards, to carry both the parental blocking data and the associated data, collectively referred to as the data access parameter or indication of protection as taught by Callway, since parental blocking data is already carried on line 21 (see page 5, line 23-page 6, line 15 of Applicant's specification).

In reference to Claim 6, Linnartz further discloses that the watermark is a multiple hash function of the seed (column 6, lines 59-60).

In reference to Claims 41, Applicant further admits that the parental blocking data is carried on field 2, line 21 (page 6, lines 13-15, as detailed above).

In reference to Claims 43 and 46, Linnartz further discloses that the associated data includes at least 64 bits (column 6, lines 20-21, where the ticket can have up to 1000 bits). Further, because Linnartz discloses associated data of up to 1000 bits in length and the ANSI/EIA-608 standard discloses that only two bytes (16 bits) are transmitted per field, a 1000 bit ticket would take a plurality of fields to transmit, and would extend over more than four fields.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Yuen et al, US Patent 5488409, discloses various uses for extended data service supplemental data location packets in field 2, line 21.

b. Kwoh et al, US Patent 6115057, discloses parental controls and other uses of extended data services in field 2, line 21.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary A. Davis whose telephone number is (571) 272-3870. The examiner can normally be reached on weekdays 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

zad

EMMANUEL L. MOISE
SUPERVISORY PATENT EXAMINER